

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY



PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43 bis.1)

To:
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Date of mailing (day/month/year)	10.01.2006
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Applicant's or agent's file reference R05149PCT	FOR FURTHER ACTION See paragraph 2 below
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International application No. PCT/JP2005/017919	International filing date (day/month/year) 21.09.2005	Priority date (day/month/year) 22.09.2004
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International Patent Classification (IPC) or both national classification and IPC
Int.Cl. **H01L21/822** (2006.01), **H01L27/04** (2006.01), **G05F3/26** (2006.01)

Applicant
RICOH COMPANY, LTD.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Date of completion of this opinion		21.12.2005	
Name and mailing address of the ISA/JP		Authorized officer	4L 9361
Japan Patent Office		KAZUNARI TANADA	
3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan		Telephone No. +81-3-3581-1101	Ext. 3498

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/JP2005/017919

Box No. I

Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed
 - ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing

 - b. format of material
 - ☐ on paper
 - ☐ in electronic form

 - c. time of filing/furnishing
 - ☐ contained in the international application as filed
 - ☐ filed together with the international application in electronic form
 - ☐ furnished subsequently to this Authority for the purposes of search

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE
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International application No.

PCT/JP2005/017919

Box No. IV Lack of unity of invention

1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has, within the applicable time limit:
- ☐ paid additional fees
 - ☐ paid additional fees under protest and, where applicable, the protest fee
 - ☐ paid additional fees under protest but the applicable protest fee was not paid
 - ☒ not paid additional fees
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
- ☐ complied with
 - ☒ not complied with for the following reasons:

The inventions of claims 1-11 are linked to be one another only in respect of the feature "A semiconductor device provided with a monitor transistor for detecting electric current flowing in a driver transistor mounted on a semiconductor chip, the semiconductor device comprising a plurality of transistors provided in the monitor transistor and connected in parallel". However, this feature is disclosed in a prior art document JP 06-097795 A (INTERNATIONAL BUSINESS MACHINES CORPORATION), 1994.04.08. So the feature cannot be a special technical feature.

And there exists no special technical feature linking the inventions of claims 1-11 as to form a single general inventive concept among the inventions.

Therefore there are no technical relationship which is considered as "special technical feature" (PCT rule 13.2) among the claims 1-6. So this application contains the following groups of invention which are not so linked as to form a single inventive concept under PCT rule 13.2.

Group I: Claims 1, 3-4
Group II: Claim 2
Group III: Claims 5, 7-11
Group IV: Claims 6

4. Consequently, this opinion has been established in respect of the following parts of the international application:
- ☐ all parts
 - ☒ the parts relating to claims Nos. 1, 3-4

**WRITTEN OPINION OF THE
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International application No.

PCT/JP2005/017919

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims		YES
	Claims	1, 3-4	NO
Inventive step (IS)	Claims		YES
	Claims	1, 3-4	NO
Industrial applicability (IA)	Claims	1, 3-4	YES
	Claims		NO

2. Citations and explanations:

D1:JP 06-097795 A (INTERNATIONAL BUSINESS MACHINES CORPORATION),
1994.04.08., Paragraphs[0028] -[0031], Fig.10-12 (Family:none)

Claims 1, 3-4

The subject matter of claims 1, 3-4 does not appear to be novel with respect to D1.

D1 discloses "A semiconductor device provided with a monitor transistor for detecting electric current flowing in a driver transistor mounted on a semiconductor chip, the semiconductor device comprising a plurality of transistors provided in the monitor transistor and connected in parallel". And it is a matter of workshop modification to layout monitor transistors in order to detect characteristic of semiconductor device adequately.